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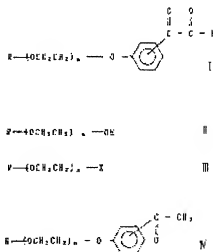
(54) POLYETHYLENE GLYCOL DERIVATIVE, MODIFIED PEPTIDE AND PRODUCTION THEREOF

(57)Abstract:

NEW MATERIAL: A compound expressed by formula I (R is lower alkyl; n is the average molecular weight of polyethylene glycol part and an integer of 1000-12000).

USE: A peptide modifying agent capable of selectively modifying guanidino groups of peptides and providing extremely stable modified polypeptides, having intact physiological activity of unmodified peptides, excellent in persistence of the physiological activity in vivo and extremely effectively used as a medicine.

PREPARATION: A monoalkoxy polyethylene glycol



expressed by formula II is initially reacted with an activating reagent (e.g., methylsulfonyl-chloride) in the presence of a base to provide an active substance expressed by formula III (X' is alkylsulfonyloxy, halogen, etc.), which is then reacted with hydroxyacetophenone in the presence of a base in a solvent to afford a compound expressed by formula IV. The above-mentioned compound is subsequently oxidized with an oxidizing agent, such as selenium dioxide, in a solvent.

1. JP_02-117920_A(1990)